

BARNES & THORNBURG LLP

**11 South Meridian Street
Indianapolis, Indiana 46204
(317) 236-1313
(317) 231-7433 Fax**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Customer No.: 23643

Group: 2881

Confirmation No.: 9788

Application No.: 10/578,679

Invention: METHODS AND APPARATUS FOR
MASS SPECTRAL ANALYSIS OF
PEPTIDES AND PROTEINS

Electronically filed on:
February 27, 2007

Applicant: Reilly, James P., et al.

Filed: May 9, 2006

Attorney

Docket: 29920-200170

Examiner: Unknown

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Mail Stop Amendment
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

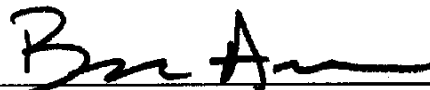
Sir:

This Statement is filed in the application identified above pursuant to 37 C.F.R. § 1.56. No representation is intended that a complete search has been made of the prior art or that no better art references than listed below are available. Pursuant to the Patent Office's waiver of 37 C.F.R. 1.908(a)(2)(i), copies of U.S. patent references and/or publications have not been provided; however, a copy of each foreign and/or other references are provided for review by the Examiner. The filing of this Statement shall not be construed to be an admission that the information cited in the Statement is, or is considered to be, material to patentability as defined in §1.56(b).

Please charge any fees that might be due in connection with this Supplemental Information Disclosure Statement to our Deposit Account No. 10-0435 for our reference number 29920-200170.

Respectfully submitted,

BARNES & THORNBURG LLP

A handwritten signature in black ink, appearing to read "B. Addison", is written over a horizontal line.

Bradford G. Addison
Attorney Reg. No. 41486

BGA
Indianapolis, IN
(317) 231-7253

829793_1.DOC

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT				ATTY. DOCKET NO. 29920-200170		SERIAL NO. 10/578,679	
				APPLICANT Reilly, James P., et al.			
				FILING DATE May 9, 2006		GROUP	

U.S. PATENT DOCUMENTS							
*Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
	AA	6,323,482	27 Nov 2001	Clemmer & Reilly			
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

FOREIGN PATENT DOCUMENTS							
		Document Number	Date	Country	Class	Subclass	Translation Yes No
	AL						
	AM						
	AN						
	AO						
	AP						

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)		
	AR	Barbacci, D. C., et al., "Sequence and Side-Chain Specific Photofragment (193 nm) Ions from Protonated Substance P by Matrix-Assisted Laser Desorption Ionization Time-of-Flight Mass Spectrometry," <i>J. Am. Soc. Mass Spectrom.</i> 10: 1038-1040 (1999)
	AS	Beardsley, R. L., and Reilly, J. P., "Quantitation Using Enhanced Signal Tags: A Technique for Comparative Proteomics," <i>J. Proteome Research</i> 2:15-21 (2003)
	AT	Beardsley, R. L., et al., "Optimization of Guanidination Procedures for MALDI Mass Mapping," <i>Anal. Chem.</i> 74, 1884-1890 (2002)
	AU	Bowers, W. D., et al. "Fragmentation of Oligopeptide Ions Using Ultraviolet Laser Radiation and Fourier Transform Mass Spectrometry," <i>J. Am. Chem. Soc.</i> , 106: 7288-7289 (1984)
	AV	Breci, L. A., et al., "Cleavage N-Terminal to Proline: Analysis of a Database of Peptide Tandem Mass Spectra," <i>Anal. Chem.</i> , 75, 1963-1971 (2003)
	AW	Cooper, H. J., et al., "Characterization of Amino Acid Side Chain Losses in Electron Capture Dissociation," <i>J. Amer Soc Mass Spectrom.</i> 13, 241-249 (2002)
	AX	Harrison, A. G. "The Gas-Phase Basicities and Proton Affinities of Amino Acids and Peptides," <i>Mass Spectrom Reviews</i> , 16, 201-217 (1997)
	AY	Hunt, D. F., et al., "Protein Sequencing by Tandem Mass Spectrometry," <i>Proc. Natl. Acad. Sci. USA</i> 83, 6233-6237 (1986)
	AZ	Hunt, D. F., et al., "Sequence Analysis of Oligopeptides by Secondary Ion/Collision Activated Dissociation Mass Spectrometry," <i>Anal. Chem.</i> , 53, No. 11, 1704-1706 (1981)

Examiner	Date Considered
----------	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609.
 Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

BASED ON FORM PTO 1449

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT				ATTY. DOCKET NO. 29920-200170		SERIAL NO. 10/578,679	
				APPLICANT Reilly, James P., et al.			
				FILING DATE May 9, 2006		GROUP	
U.S. PATENT DOCUMENTS							
*Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
	BA						
	BB						
	BC						
	BD						
	BE						
	BF						
	BG						
	BH						
	BI						
	BJ						
	BK						
FOREIGN PATENT DOCUMENTS							
		Document Number	Date	Country	Class	Subclass	Translation Yes No
	BL						
	BM						
	BN						
	BO						
	BP						
OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)							
	BR	Johnson, R. S., et al., "Collision-Induced Fragmentation of (M+H) ⁺ Ions of Peptides. Side Chain Specific Sequence Ions" <i>Int. J. Mass Spectrom Ion Processes</i> 86:137-154 (1988)					
	BS	Kaufmann, R., et al., "Sequencing of peptides in a time-of-flight mass spectrometer: evaluation of postsource decay following matrix-assisted laser desorption ionisation (MALDI)," <i>Int. J. Mass Spectrom. and Ion Proc.</i> 131: 355-385 (1994)					
	BU	Kelleher, N. L., et al., "Top Down versus Bottom Up Protein Characterization by Tandem High-Resolution Mass Spectrometry," <i>J. Am. Chem. Soc.</i> 121, No. 4, 806-812 (1999)					
	BT	Keough, T., et al., "A method for high-sensitivity peptide sequencing using postsource decay matrix-assisted laser desorption ionization mass spectrometry," <i>Proc. Natl. Acad. Sci. USA</i> 96, 7131-7136 (1999)					
	BV	Kruger, N. A., et al., "Electron capture versus energetic dissociation of protein ions," <i>Int. J. Mass Spectrom.</i> , 182/183, 1-5 (1999)					
	BW	Little, D. P., et al., "Infrared Multiphoton Dissociation Of Large Multiply Charged Ions For Biomolecule Sequencing," <i>Anal. Chem.</i> , 66, No. 18, 2809-2815 (1994)					
	BX	Martin, S. A., et al., "Photon-Induced Dissociation with a Four-Sector Tandem Mass Spectrometer," <i>J. Am. Soc. Mass. Spectrom.</i> , 1, 107-109 (1990)					
	BY	Medzhiradzsky, K. F., et al., "The Characteristics of Peptide Collision-Induced Dissociation Using a High-Performance MALDI-TOF/TOF Tandem Mass Spectrometer," <i>Anal. Chem.</i> , 72, 552-558 (2000)					
	BZ	Peterson, D. L., et al., "Polarized Electronic Absorption Spectrum of Amides with Assignments of Transitions," <i>J. Am. Chem. Soc.</i> , 79, 2375-2382 (1957)					
Examiner						Date Considered	
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.							

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT				ATTY. DOCKET NO. 29920-200170		SERIAL NO. 10/578,679	
				APPLICANT Reilly, James P., et al.			
				FILING DATE May 9, 2006		GROUP	

U.S. PATENT DOCUMENTS							
*Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
	CA						
	CB						
	CC						
	CD						
	CE						
	CF						
	CG						
	CH						
	CI						
	CJ						
	CK						

FOREIGN PATENT DOCUMENTS							
		Document Number	Date	Country	Class	Subclass	Translation Yes No
	CL						
	CM						
	CN						
	CO						
	CP						

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)		
	CR	Preiss, J. W., et al. "Spectra of Some Amino Acids, Peptides, Nucleic Acids, and Protein in the Vacuum Ultraviolet," <i>J. Chem. Phys.</i> , 25, No. 1, 138-141 (1956)
	CS	Price, W. D., et al. "Tandem Mass Spectrometry of Large Biomolecule Ions by Blackbody Infrared Radiative Dissociation," <i>Anal. Chem.</i> , 68, No. 5, 859-866 (1996)
	CT	Roepstorff, P. et al., "Proposal for a Common Nomenclature for Sequence Ions in Mass Spectra of Peptides," <i>Biomed. Mass Spectrom.</i> , 11, No. 11, 601 (1984)
	CU	Spengler, B., et al., "Fundamental Aspects of Postsource Decay in Matrix-Assisted Laser Desorption Mass Spectrometry. 1. Residual Gas Effects," <i>J. Phys. Chem.</i> , 96, No. 24, 9678-6984 (1992)
	CV	Williams, E. R., et al., "Surface-Induced Dissociation of Peptide Ions in Fourier-Transform Mass Spectrometry," <i>J Am Soc Mass Spectrom</i> , 1, 413-416 (1990).
	CW	Zimmerman, J. A., et al. "Multiphoton Ionization of Laser-Desorbed Neutral Molecules in a Fourier Transform Ion Cyclotron Resonance Mass Spectrometer," <i>Anal. Chem.</i> , 63, 361-365 (1991)
	CX	Zubarev, R. A., et al., "Electron Capture Dissociation Of Multiply Charged Protein Cations. A Nonergodic Process," <i>J. Am. Chem. Soc.</i> , 120, 3265-3266 (1998)
	CY	
	CZ	

Examiner	Date Considered
----------	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609.
 Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.